What is claimed is:

1. An adaptive wireless network system having a central optimizer in a system for embodying an adaptive wireless network through a use of the central optimizer, comprising:

an optimizing unit for selecting optimum transmission/reception types of sub networks and transmitting them;

an access point determining unit for providing subnet activity representative data which contain node activity representative data and activity representative data of access point itself, to said optimizing unit, and determining it as the optimum transmission/reception type; and

a communication node determining unit for re-determining its own transmission/reception type according to a requirement of said access point determining unit.

2. The system as recited in claim 1, wherein said optimizing unit includes:

a part for transferring a command for requiring the subnet activity representative data depending upon a time, to a plurality of access points;

a part for selecting the optimum transmission/reception type of corresponding sub networks from the subnet activity representative data provided from the plurality of access points; and

a part for providing the selected optimum

transmission/reception type to the corresponding access points.

3. The system as recited in claim 2, wherein said subnet activity representative data depending upon the time, contain an information collection hour, an information collection time, a packet type(length) of the access point and corresponding nodes, an existence and non-existence of a FEC(Forward Error Correction), power of a transmission(reception), and an error rate.

4. The system as recited in claim 2, wherein said selected optimum transmission/reception type contains a determination start hour, a determination completion time, the packet type(length) of the access point and the corresponding nodes, the existence and non-existence of the FEC, the transmission power.

5. The system as recited in claim 2, wherein said part for selecting the optimum transmission/reception type has an algorithm for deciding an existence and non-existence of an interference through the transmission and reception of specific nodes, from a relation between an existence and non-existence for the transmission and reception of the specific nodes, and an error rate change width provided in a transmission to an Ith access point and a reception to a Jth node, through a comparison with the subnet activity representative data gained on the neighborhood of a specific

hour.

6. The system as recited in claim 1, wherein said access point determining unit includes:

a part for providing the node activity representative data from the corresponding nodes depending upon the time, and the activity representative data of the access point itself, to the central optimizer, by a requirement of the central optimizer; and

a part for storing the optimum transmission/reception type at a wireless communication node in order to determine the wireless communication nodes on the basis of the optimum transmission/reception type provided from the central optimizer.

7. The system as recited in claim 1, wherein said communication node determining unit includes:

a part for providing data for defining an activity type of node itself containing a reception signal strength, to a corresponding access point, according to a requirement of the access point determining unit; and

a part for re-determining its own transmission/reception type information as the optimum transmission/reception type provided from the access point.

8. The system as recited in claim 1, wherein said optimum transmission/reception type includes the packet type

containing the packet length and a transmission output of the access point and the wireless communication node.

9. The system as recited in claim 1, wherein said optimizing unit decides a transmission/reception type, containing the transmission power of the access point, reception power of the access point, an error rate of the access point, and a representative value for the transmission power, the reception power and the error rate of the communication nodes.

10. The system as recited in claim 7, wherein said packet length among the optimum transmission/reception types is optimized through a packet re-transmission probability and a packet transmission average time expressed as:

$$P\_retransmit = 1-(1-P(L=L_{ACESS}))^{m}\,(1-P(L=L_{ACK}))^{n}$$

wherein P indicates a probability for a collision between a single bluetooth piconet and a radio LAN packet, $L=L_{ACESS}$ represents the packet length that the access point sends to, m provides the number of piconets for interfering when a wireless LAN node receives a packet having a length of L_{ACESS} from the access point, $L=L_{ACK}$ provides a length of an ACK packet for confirming that the wireless LAN node received the packet, and n indicates the number of the piconets for interfering when the access point receives the packet having a

length of L_{ACK} from the wireless LAN node,

AverageTime = s + k (headerTime + payloadTime_k + P_retransmit s + t) / (1- P_retransmit)

wherein s indicates the sum of a DIFS time and a slot time SlotTime of 15 times, k represents a natural number, headerTime provides a time necessary for transmitting a header, payloadTime_k represents a time necessary for transmitting a payload k-divided from an original payload having a length of 1500 octet, t provides the sum of an SIFS time, a header time and a time necessary for transmitting an ACK, and P_retransmit furnishes a packet re-transmission probability.

11. A method for embodying an adaptive wireless network system having a central optimizer, comprising the steps of:

a) selecting optimum transmission/reception types of sub networks, and transmitting them;

b) providing subnet activity representative data containing node activity representative data and activity representative data of access point itself, to an optimizing unit, and determining it as an optimum transmission/reception type; and

c) re-determining its own transmission/reception type according to a requirement of an access point determining unit.

12. The method as recited in claim 11, wherein said step

a) includes the steps of:

a1) transferring a command for requiring subnet wave use data depending upon a time, to access points;

a2) selecting the optimum transmission/reception types of corresponding sub networks for an escape from an interference from the subnet wave use data provided by the access point; and

a3) providing optimum transmission/reception type data to corresponding access points in order to determine a specific subnet as the selected optimum transmission/reception type.

13. The method as recited in claim 11, wherein said step b) includes the steps of:

b1) providing the node activity representative data provided from corresponding nodes depending upon the time, and the activity representative data of access point itself, to the optimizing unit, by a requirement of the optimizing unit; and

b2) determining wireless communication nodes as the optimum transmission/reception type provided from the optimizing unit.

14. The method as recited in claim 11, wherein said step c) includes the steps of:

c1) providing data for representing an activity of node itself containing a reception signal strength according to a requirement of an access point determining unit; and

c2) re-determining its own transmission/reception type.

15. A computer readable record medium having a writing of a program, in a wireless network system having an installment of a processor to embody an adaptive wireless network by using a central optimizer, said computer readable record medium characterized in that said programs is provided to realize the functions of:

a) selecting optimum transmission/reception types of sub networks, and transmitting them;

b) providing node activity representative data and activity representative data of access point itself to an optimizing unit, and determining it as an optimum transmission/reception type; and

c) re-determining its own transmission/reception type according to a requirement of an access point determining unit.